

CE CIT UOB
ITCE260 (Circuit Analysis)

Test 1

Time: 1 hour

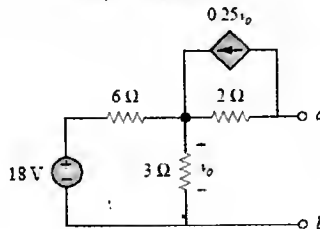
Date: 7 Nov, 2013

Dr. Riyadh Al-Hakim

Name:	Sec: 1	ID #:
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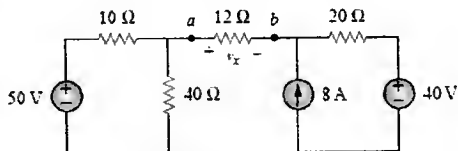
Q1 [35 marks]

Find R_L (connected between a-b terminals) that absorbs maximum power. Find this power.



Q2 [35 marks]

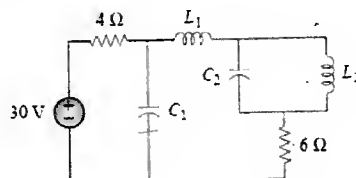
Apply source transformation then superposition to find v_x



Q2 [30 marks]

Find the energy stored and power dissipated by each R, L and C.

$C_1=0.1 \text{ F}$, $C_2=0.2 \text{ F}$, $L_1=3 \text{ H}$, $L_2=5 \text{ H}$



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Test 2

Time: 1 hour

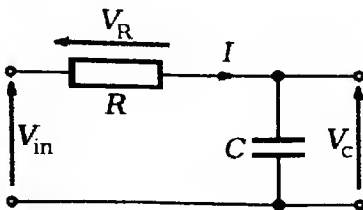
Date: 22 Dec, 2013

Dr. Riyadh Al-Hakim

Name: _____	Sec: 1	ID #: _____
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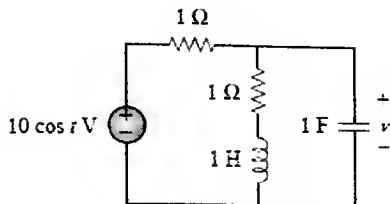
Q1 [40 marks]

In the following circuit, assume $R = 50 \Omega$, $C = 0.1 \text{ F}$ and $V_{in} = 100(u[t] - u[t-8])$.
 Find V_c and I at $t = 0$, $t = 2 \text{ s}$, $t = 5 \text{ s}$, $t = 10 \text{ s}$, and $t = \infty$.



Q2 [40 marks]

In the following circuit, find v :



- In **rectangular** form
- In **polar** form
- In **time domain** form

Q3 [20 marks]

In the following circuit:

- Find ω for maximum current
- Calculate this maximum current

